

**Serial No. 09/902,709**

**Listing of the Claims:**

1-25 (Canceled)

26. (New) A method for automatically measuring EIRP power, comprising:
- receiving a request for an EIRP measurement of a customer carrier signal;
  - activating a cockpit program to (a) select a satellite and transponder with an associated polarization corresponding to the customer carrier signal from a database, (b) select a reference carrier signal based on at least one of the selected satellite and transponder, (c) set a spectrum analyzer to one of a resolution or video bandwidth based on a predetermined code corresponding to the customer carrier signal, and (d) measures a level of the reference carrier signal and a level and bandwidth of the carrier signal within the resolution or video bandwidth based on the settings in (c);
  - activating a power program to calculate an EIRP measurement of the customer carrier signal based on a difference between the measured reference carrier signal level and the measured customer carrier signal level; and
  - providing the EIRP measurement to the customer in response to the request.
27. (New) The method of claim 26, wherein the cockpit program performs (d) by:
- automatically activating delta marker;
  - adjusting the delta marker to a predetermined point on one side of the customer carrier signal;

storing the customer carrier signal in a trace A.

28. (New) The method of claim 27, wherein the delta marker is established at a peak amplitude of the customer carrier signal, after which the delta marker function is then activated.

29. (New) The method of claim 27, wherein the cockpit program further:  
activates a trace B;  
dials in a frequency of the reference carrier signal at 10 dbw;  
places the reference carrier signal in direct relation to the delta marker on the customer carrier signal; and  
reads and records a 3 db bandwidth and amplitude of the customer carrier signal.

30. (New) The method of claim 29, wherein power program calculates the EIRP measurement by:  
applying a modulated-data-carrier formula which computes a correction factor (CF) related to a power of an unmodulated carrier; and  
adding the correction factor to the difference between the measured reference carrier signal level and the measured customer carrier signal level.

31. (New) The method of claim 30, wherein said modulated-data-carrier formula is  $CF = 10 \cdot \log(MB/RB)$ , where MB is the measured bandwidth of the customer carrier signal and RB is the resolution bandwidth.

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32. (New) The method of claim 30, wherein the cockpit program performs (d) by:

- saving the customer carrier signal in a first register;
- controlling maximum hold on the customer carrier signal to smooth out at least one of trace A and trace B;
- saving the customer carrier signal in a second register subsequent to the controlling step;
- controlling performance of a peak search on the customer carrier signal and determining a peak amplitude;
- activating the delta marker on the peak amplitude and moving the marker 3db below peak on one side;
- moving the delta marker to another side of the peak amplitude at 3 db down;
- outputting a 3 db bandwidth;
- calculating the correction factor (CF) by applying said modulated-data-carrier formula;
- recalling the customer carrier signal from the second register;
- controlling performance of a peak search on the recalled customer carrier signal, storing the result in trace A, and activating the delta marker;
- clearing/write trace B;
- call the reference carrier for the transponder;
- outputting the difference between the measured reference carrier signal level and the modulated customer carrier signal level; and

adding the correction factor and said difference to compute the EIRP measurement.

33. (New) The method of claim 26, wherein the reference carrier signal is a fixed continuous wave carrier at a power level of 10 dbw at a predetermined frequency.

34. (New) The method of claim 26, wherein the cockpit program sets the spectrum analyzer to a video bandwidth based on said predetermined code, and wherein the video bandwidth is selected to filter the customer carrier signal to a desired view.

35. (New) The method of claim 26, wherein the power program calculates the EIRP measurement independent of a calibration of a downlink corresponding to the customer carrier signal.

36. (New) A system for automatically measuring EIRP power, comprising:  
a first processor executing a cockpit program in response to a request for an EIRP measurement of a customer carrier signal, said program (a) selecting a satellite and transponder with an associated polarization corresponding to the customer carrier signal from a database, (b) selecting a reference carrier signal based on at least one of the selected satellite and transponder, (c) setting a spectrum analyzer to one of a resolution or video bandwidth based on a predetermined code corresponding to the customer carrier signal, and (d) measuring a level of

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the reference carrier signal and a level and bandwidth of the carrier signal within the resolution or video bandwidth based on the settings in (c);

a second processor executing a power program to calculate an EIRP measurement of the customer carrier signal based on a difference between the measured reference carrier signal level and the measured customer carrier signal level; and

output means for providing the EIRP measurement to the customer in response to the request.

37. (New) The system of claim 36, wherein the cockpit program performs (d) by:  
automatically activating delta marker;  
adjusting the delta marker to a predetermined point on one side of the customer carrier signal;  
storing the customer carrier signal in a trace A.

38. (New) The system of claim 37, wherein the delta marker is established at a peak amplitude of the customer carrier signal, after which the delta marker function is then activated.

39. (New) The system of claim 37, wherein the cockpit program further:  
activates a trace B;  
dials in a frequency of the reference carrier signal at 10 dbw;  
places the reference carrier signal in direct relation to the delta marker on the customer carrier signal; and

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reads and records a 3 db bandwidth and amplitude of the customer carrier signal.

40. (New) The system of claim 39, wherein power program calculates the EIRP measurement by:

applying a modulated-data-carrier formula which computes a correction factor (CF) related to a power of an unmodulated carrier; and

adding the correction factor to the difference between the measured reference carrier signal level and the measured customer carrier signal level.

41. (New) The system of claim 40, wherein said modulated-data-carrier formula is  $CF = 10 * \log (MB/RB)$ , where MB is the measured bandwidth of the customer carrier signal and RB is the resolution bandwidth.

42. (New) The system of claim 40, wherein the cockpit program performs (d) by:

saving the customer carrier signal in a first register;

controlling maximum hold on the customer carrier signal to smooth out at least one of trace A and trace B;

saving the customer carrier signal in a second register subsequent to the controlling step;

controlling performance of a peak search on the customer carrier signal and determining a peak amplitude;

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activating the delta marker on the peak amplitude and moving the marker 3db below peak on one side;

moving the delta marker to another side of the peak amplitude at 3 db down;

outputting a 3 db bandwidth;

calculating the correction factor (CF) by applying said modulated-data-carrier formula;

recalling the customer carrier signal from the second register;

controlling performance of a peak search on the recalled customer carrier signal, storing the result in trace A, and activating the delta marker;

clearing/write trace B;

call the reference carrier for the transponder;

outputting the difference between the measured reference carrier signal level and the modulated customer carrier signal level; and

adding the correction factor and said difference to compute the EIRP measurement.

43. (New) The system of claim 36, wherein the reference carrier signal is a fixed continuous wave carrier at a power level of 10 dbw at a predetermined frequency.

44. (New) The system of claim 36, wherein the cockpit program sets the spectrum analyzer to a video bandwidth based on said predetermined code, and wherein the video bandwidth is selected to filter the customer carrier signal to a desired view.

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45. (New) The system of claim 36, wherein the power program calculates the EIRP measurement independent of a calibration of a downlink corresponding to the customer carrier signal.

46. (New) The system of claim 36, wherein the first and second processors are a same processor.